1. An ARC comprising:

a material substantially composed of $M_xSi_yN_z$, wherein:

M is at least one transition metal;

y is greater than x; and

z is in a range from about 0 to about 5y.

2. An ARC as defined in Claim 1, wherein M includes at least two transition metals of the configuration $M1_rM2_{1-r}$, wherein r is in a range from 0 to 1.

3. An ARC as defined in Claim 2, wherein M1 is tungsten and r is 1.

4. An ARC as defined in Claim 2, wherein M1 is tungsten, M2 is titanium, and r is about 0.5.

5. An ARC as defined in Claim 1, wherein M is tungsten, x is 1, and Si is in a range from about 1.5 to about 5.

6. An ARC as defined in Claim 1, wherein said ARC has a thickness range from about 25 Angstroms to about 1,000 Angstroms.

7. An ARC as defined in Claim 1, wherein said ARC has a thickness range from about 50 Angstroms to about 400 Angstroms.

8. An ARC as defined in Claim 1, wherein said ARC has a thickness range from about 85 Angstroms to about 200 Angstroms.

WORKMAN, NYDEGGER & SEELEY
A PROFESSIONAL CORPORATION
ATTORNEYS AT LAW
1000 EAGLE GATE TOWER
60 EAST SOUTH TEMPLE
SALT LAKE CITY, UTAH 84111

9. An ARC as defined in Claim 1, wherein y equals about 2x.

10. An ARC as defined in Claim 1, wherein y equals about 2.55x.

11. An ARC as defined in Claim 1, wherein y equals about 2.7x.

12. An ARC as defined in Claim 1, wherein M includes a combination of $M1_rM2_{1-r}$, wherein r is in the range from 0 to 1, and wherein M1 and M2 are selected from the group consisting of Sc, Ti, Zr, Nb, Ta, Mo, W, Co, and Ni and wherein M1 is not M2.

13. An ARC as defined in Claim 1, wherein z is in a range from about 1y to about 2y.

14. An ARC as defined in Claim 1, further composed of hemispherical grained polysilicon.

15. An ARC as defined in Claim 1, wherein the material substantially composed of $M_xSi_yN_z$ is a metal silicon nitride ternary compound.

16. A semiconductor structure comprising:

a semiconductor substrate;

an ARC over the semiconductor substrate, said ARC being composed of a metal silicon nitride ternary compound, wherein the metal is at least one metal selected from the group consisting of Sc, Ti, Zr, Nb, Ta, Mo, W, Co, Al, and Ni.

WORKMAN, NYDEGGER & SEELEY
A PROFESSIONAL CORPORATION
ATTORNEYS AT LAW
1000 EAGLE GATE TOWER
60 EAST SOUTH TEMPLE
SALT LAKE CITY, UTAH 84111

17. The semiconductor structure as defined in Claim 16, wherein the metal silicon nitride ternary compound is selected from the group consisting of titanium tungsten nitride, tungsten aluminum nitride, and titanium aluminum nitride

18. The semiconductor structure as defined in Claim 16, wherein said ARC has a thickness range from about 25 Angstroms to about 1,000 Angstroms.

19. The semiconductor structure as defined in Claim 16, wherein the metal is selected from the group consisting of Ti_rW_{1-r}, W_rAl_{1-r}, or Ti_rAl_{1-r}.

20. The semiconductor structure as defined in Claim 16, wherein:

said ARC has a film thickness and a grain size; and

the grain size of the ARC is less than the film thickness or is amorphous.

21. The semiconductor structure as defined in Claim 16, wherein the metal silicon nitride ternary compound is $M_xSi_yN_z$, M is a metal, x is greater than zero, y is greater than 2x, and z is in a range from about 1y to about 5y.

22. The semiconductor structure as defined in Claim 21, wherein z is in a range from about 1y to about 2y.

23. The semiconductor structure as defined in Claim 21, wherein said ARC is further composed of hemispherical grained polysilicon.

24. The semiconductor structure as defined in Claim 16, wherein the ARC reflects incident light energy in a reflectivity that is in a range from 0 percent to about 30 percent.

WORKMAN, NYDEGGER & SEELEY
A PROFESSIONAL CORPORATION
ATTORNEYS AT LAW
1000 EAGLE GATE TOWER
60 EAST SOUTH TEMPLE
SALT LAKE CITY, UTAH 84111

Sub A4

25. The semiconductor structure as defined in Claim 16, wherein:

the ARC is upon a formation that is selected from the group consisting of an isolation trench, a contact corridor, a via, a stacked storage node well, and a wiring trench.

26. A semiconductor structure comprising:

a semiconductor substrate;

an ARC upon said semiconductor substrate, said ARC being composed of a metal silicon nitride ternary compound $M_xSi_yN_z$, wherein:

x is greater than zero;

y is greater than x;

z is greater than zero and less than about 5y;

M is at least two transition metals composed of $M1_rM2_{1-r}$;

r is in a range from 0 to 1;

M1 and M2 are selected from the group consisting of Sc, Ti, Zr, Nb, Ta, Mo, W, Co, and Ni; and

M1 is not M2.

27. The semiconductor structure as defined in Claim 26, wherein said ARC has a thickness range from about 25 Angstroms to about 1,000 Angstroms.

28. The semiconductor structure as defined in Claim 26, wherein said ARC is also composed of hemispherical grained polysilicon.

WORKMAN, NYDEGGER & SEELEY
A PROFESSIONAL CORPORATION
ATTORNEYS AT LAW
1000 EAGLE GATE TOWER
60 EAST SOUTH TEMPLE
SALT LAKE CITY, UTAH 84111

Sub A4

29. A semiconductor structure comprising:

an electrically insulative layer upon a semiconductor substrate;

a patterned electrically conductive metal line upon electrically insulative layer;

an ARC upon said electrically conductive metal line, said ARC being composed of a metal silicon nitride ternary compound $M_xSi_yN_z$, wherein:

x is greater than zero,

M is at least one transition metal selected from the group consisting of Sc, Ti, Zr, Nb, Ta, Mo, W, Co, Al, and Ni;

y is greater than x; and

z is greater than about 0 and less than about 5y.

30. The semiconductor structure as defined in Claim 29, wherein said ARC has a thickness range from about 25 Angstroms to about 1,000 Angstroms.

31. The semiconductor structure as defined in Claim 29, wherein said ARC is also composed of hemispherical grained polysilicon.

32. A semiconductor structure comprising:

a semiconductor substrate;

an ARC over the semiconductor substrate, said ARC being composed of a metal silicide binary compound, wherein the metal is at least one metal selected from the group consisting of Sc, Ti, Zr, Nb, Ta, Mo, W, Co, Al, and Ni.

WORKMAN, NYDEGGER & SEELEY
A PROFESSIONAL CORPORATION
ATTORNEYS AT LAW
1000 EAGLE GATE TOWER
60 EAST SOUTH TEMPLE
SALT LAKE CITY, UTAH 84111

WORKMAN, NYDEGGER & SEELEY
A PROFESSIONAL CORPORATION
ATTORNEYS AT LAW
1000 EAGLE GATE TOWER
60 EAST SOUTH TEMPLE
SALT LAKE CITY, UTAH 84111

33. The semiconductor structure as defined in Claim 32, wherein:

the metal silicide binary compound is $M1_rM2_{1-r}Si_s$;

M1 and M2 are both said at least one metal and are selected from said group;

M1 is not M2;

r is in a range from 0 to 1; and

s is greater than zero.

34. The semiconductor structure as defined in Claim 33, wherein M1 and M2 are selected from the group consisting of Sc, Ti, Zr, Nb, Ta, Mo, W, Co, and Ni.

35. The semiconductor structure as defined in Claim 33, wherein M1 and M2 are selected from the group consisting of Sc, Ti, Nb, Ta, W, Co, and Ni.

Sub A5

36. The semiconductor structure as defined in Claim 32, wherein:

the metal silicide binary compound is M_xSi_y;

M is tungsten, x is 1, and Si is in a range from about 1.5 to about 5.

37. The semiconductor structure as defined in Claim 32, wherein said ARC is further composed of hemispherical grained polysilicon.

38. The semiconductor structure as defined in Claim 32, wherein:

said ARC has a film thickness and a grain size; and

the grain size of the ARC is less than the film thickness or is amorphous.

39. The semiconductor structure as defined in Claim 32, wherein the ARC reflects incident light energy in a reflectivity that is in a range from 0 percent to about 30 percent.

SUB A5

40. The semiconductor structure as defined in Claim 32, wherein:

the ARC is upon a formation that is selected from the group consisting of an isolation trench, a contact corridor, a via, a stacked storage node well, and a wiring trench.